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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,524	10/28/2003	Bindu Rama Rao	14324US02	5397

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EXAMINER

LE, DIEU MINH T

ART UNIT PAPER NUMBER

2114

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/695,524

Applicant(s)

RAO ET AL

Examiner

Dieu-Minh Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/18/04 & 1/23/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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1. This Office Action is response to the communication filed on 05/09/05 in application 10/695,524.

2. Claims 1-35 are presented for examination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered

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therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-35 are rejected under 35 U.S.C. § 103(a) as being unpatentable Mikami et al. (US Patent 5,704,031 hereafter referred to as Mikami) in view of Faust et al. (US 2002/0124209 hereafter referred to as Faust).

As per claim 1:

Mikami substantially teaches the invention. Mikami explicitly teaches:

- An updatable electronic device [abstract, fig. 1, col. 1, lines 64 through col. 2, line 10; col. 2, lines 21-37] comprising:
 - a memory having at least one of firmware and software [col. 4, lines 62-67];
 - determining the occurrence of at least one of an error and an exception during the execution of the at least one

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of firmware and software [col. 2, lines 15-21; col. 3, lines 1-9];

- gathering at least one parameter related to the occurrence of the at least one of an error and an exception [col. 2, lines 21-24];

- interface circuitry for receiving update information via a communication network [col. 2, lines 26-28 and col. 3, lines 15-18];

- applying the update information to at least a portion of the at least one of firmware and software [col. 2, lines 29-36].

Mikami does not explicitly teach:

- first, second, and third firmware components.

However, Mikami does disclose capability of:

- A client/server system for performing self-diagnosing hardware, software, firmware computing electronics devices [abstract, fig. 1, col. 1, lines 9-12] comprising:

- *network devices connectivity among plurality of servers, clients, management devices, memory, (i.e., hardware, software, and firmware) etc... in supporting the error*

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detection and correction process [fig. 1, col. 3, lines 60 through col. 4, lines 25].

In addition, Faust explicitly teaches:

- A method, apparatus, and computer implemented system for error detection and analysis in a **firmware environment** [abstract, fig. 5, col. 1, par. 0002 and col. 4, claim 1] comprising:

- **firmwares used for data connectivity and error detection and analysis** [fig. 2-3, col. 3, par. 0033; col. 4, claim 12].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention was made to first realizing Mikami's **network devices connectivity among plurality of servers, clients, management devices, memory, (i.e., hardware, software, and firmware) etc...** in supporting the error detection and correction process as **being** first, second, and third firmware components as claimed by Applicant. This is because Mikami explicitly used multiple servers as firmware components to perform data gathering, error detection, and information updating as illustrated therein. It is further obvious to an ordinary skill in the art to apply

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Mikami electronics devices connected via a client/server environments to update information in providing a smooth networking operation process; second, by applying the ***firmwares used for data connectivity and error detection and analysis*** feature as taught by Faust in conjunction with the client/server system for performing self-diagnosing hardware, software, firmware computing electronics devices as disclosed by Mikami, the data/electronic computing device can enhance its operation performance, more specifically to ensuring the failure be monitored, detected, corrected in an efficient manner.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to improve the data updatable electronics device via a multiple client/servers networking (firmwares) environment with a mechanism to enhance the data security, data performance, data availability, and data throughput.

As per claims 2-3:

Mikami further teaches:

- firmware version [col. 5, lines 47-62];

Mikami does not explicitly teach:

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- error type, error code, stack trace information, serial number, a battery level, etc..

However, Mikami does disclose capability of:

- A client/server system for performing self-diagnosing hardware, software, firmware computing electronics devices [abstract, fig. 1, col. 1, lines 9-12] comprising:
 - *network devices connectivity among plurality of servers, clients, management devices, memory, (i.e., hardware, software, and firmware) etc... in supporting the error detection and correction process* [fig. 1, col. 3, lines 60 through col. 4, lines 25].

In addition, Faust explicitly teaches:

- A method, apparatus, and computer implemented system for error detection and analysis in a firmware environment [abstract, fig. 5, col. 1, par. 0002 and col. 4, claim 1] comprising:
 - *firmwares used for data connectivity and error detection and analysis* [fig. 2-3, col. 3, par. 0033; col. 4, claim 12].

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention was made to first realizing the error type, error code, stack trace information, serial number, a battery level, etc... as claim by Applicant are obvious information, well known, and readily available in any electronics devices connected via a networking environment. That is a electronics devices must have sometype of battery, serial number, etc...to be able to function. In addition, errors are detected and corrected via ECC or any type of error correction method thereof; second, both Mikami and Faust's invention are implicitly embedded these information therein in order for such a network to perform correctly.

As per claims 4-5:

Even though, Mikami does not explicitly teach:

- a mobile handset and a wireless network.

However, Mikami does disclose capability of:

- *network devices connectivity among plurality of servers, clients, management devices, memory, (i.e., hardware, software, and firmware) etc... in supporting the error detection and correction process* [fig. 1, col. 3, lines 60 through col. 4, lines 25].

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In addition, Faust explicitly teaches:

- A method, apparatus, and computer implemented system for error detection and analysis in a **firmware environment**

[abstract, fig. 5, col. 1, par. 0002 and col. 4, claim 1]

comprising:

- **a wireless communication network used in supporting the error detection and analysis** [fig. 2-3, col. 4, par.

0042].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention was made to first realizing the Mikami's error detection and correction via client/server environment can be functioned in a wireless communication with mobile handsets device. This is because the performing data communication in a client/server means data can easily transmitted through wireless environment (i.e., mobile handset can be a client itself); second, by applying the **a wireless communication network used in supporting the error detection and analysis** feature as taught by Faust in conjunction with the client/server system for performing self-diagnosing hardware, software, firmware computing electronics devices as disclosed by Mikami, the data/electronic computing device can enhance its operation performance, more specifically

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to ensuring the failure be monitored, detected, corrected in an efficient manner.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to improve the data updatable electronics device in both terrestrial and wireless communication transmission.

As per claim 6:

Mikami further explicitly teaches:

- generating an identifier and to correct error [abstract, col. 5, lines 30-45].

Mikami does not explicitly teach:

- fourth firmware components.

However, Mikami does disclose capability of:

- A client/server system for performing self-diagnosing hardware, software, firmware computing electronics devices [abstract, fig. 1, col. 1, lines 9-12] comprising:
 - *network devices connectivity among plurality of servers, clients, management devices, memory, (i.e., hardware, software, and firmware) etc... in supporting the error*

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detection and correction process [fig. 1, col. 3, lines 60 through col. 4, lines 25].

In addition, Faust explicitly teaches:

- A method, apparatus, and computer implemented system for error detection and analysis in a **firmware environment** [abstract, fig. 5, col. 1, par. 0002 and col. 4, claim 1] comprising:

- **firmwares used for data connectivity and error detection and analysis** [fig. 2-3, col. 3, par. 0033; col. 4, claim 12].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention was made to first realizing Mikami's **network devices connectivity among plurality of servers, clients, management devices, memory, (i.e., hardware, software, and firmware) etc...** in supporting the error detection and correction process as being fourth firmware components as claimed by Applicant. This is because Mikami explicitly used multiple servers as firmware components to perform data gathering, error detection, and information updating as illustrated therein. It is further obvious to an ordinary skill in the art to apply Mikami

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electronics devices connected via a client/server environments to update information in providing a smooth networking operation process; second, by applying the ***firmwares used for data connectivity and error detection and analysis*** feature as taught by Faust in conjunction with the A client/server system for performing self-diagnosing hardware, software, firmware computing electronics devices as disclosed by Mikami, the data/electronic computing device can enhance its operation performance, more specifically to ensuring the failure be monitored, detected, corrected in an efficient manner for the same reasons set forth as described in claim 1, ***supra***.

As per claim 7:

Mikami further explicitly teaches:

- one server via the communication network, the at least one server identifying the update information used to correct the at least one of an error and an exception [col. 3, lines 60 through col. 4, lines 2; col. 2, lines 26-28 and col. 3, lines 15-18].

As per claim 8:

Mikami further explicitly teaches:

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- information for retrieving at least one update package via the communication network [col. 2, lines 21-37].

As per claim 9:

Mikami further explicitly teaches:

- a set of instructions for converting the at least a portion of the at least one of firmware and software from a first version to a second version [col. 1, lines 14-27; col. 5, lines 46 through col. 6, lines 6].

As per claim 10:

Mikami further explicitly teaches:

- a restart and a reboot of the device [col. 4, lines 58-61 and col. 7, lines 1-21, col. 2, lines 21-24].

As per claims 11-12:

Mikami further explicitly teaches:

- the device stores information related to the at least one of an error and an exception for use after at least one of a power-up, a restart and a reboot of the device. [fig. 1, col. 4, lines 26-52; col. 4, lines 58-61; col. 6, lines 11-24; and col. 7, lines 1-21];

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- the device updates the at least a portion of the at least one of firmware and software following at least one of a power-up, a restart and a reboot of the device [fig. 1, col. 4, lines 26-52; col. 4, lines 58-61; and col. 7, lines 1-21].

In addition, Faust explicitly teaches:

- A method, apparatus, and computer implemented system for error detection and analysis in a firmware environment [abstract, fig. 5, col. 1, par. 0002 and col. 4, claim 1]

comprising:

- *firmwares used for data connectivity and error detection and analysis* [fig. 2-3, col. 3, par. 0033; col. 4, claim 12].

As per claim13:

Even though, Mikami does not explicitly teach:

- a java virtual machine.

However, Mikami does disclose capability of:

- *network devices connectivity among plurality of servers, clients, management devices, memory, (i.e., hardware, software, and firmware) etc... in supporting the error*

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detection and correction process [fig. 1, col. 3, lines 60 through col. 4, lines 25].

In addition, Faust explicitly teaches:

- A method, apparatus, and computer implemented system for error detection and analysis in a **firmware environment** [abstract, fig. 5, col. 1, par. 0002 and col. 4, claim 1]

comprising:

- **Java object oriented system run on Java system** [col. 2, par. 0023].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention was made to applying the **Java object oriented system run on Java system** feature as taught by Faust in conjunction with the client/server system for performing self-diagnosing hardware, software, firmware computing electronics devices as disclosed by Mikami, the data/electronic computing device can enhance its operation performance, more specifically to ensuring the failure be monitored, detected, corrected in an efficient manner.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to improve the data updatable electronics device in both terrestrial and wireless communication transmission.

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As per claims 14-26:

Due to the similarity of claims 14-26 to claims 1-13 except for a method of operating an updatable electronic device comprising steps of determining the occurrence errors, generating an identifier based upon parameter, updating information, etc... instead of an updatable electronic device comprising a first component for determining the occurrence errors, second component for gathering parameter, a third component for updating information, etc...Therefore, these claims are also rejected under the same rationale applied against claims 1-13. **In addition, all of the limitations have been noted in the rejection as per claims 1-13.**

As per claims 27-29:

Due to the similarity of claims 27-29 to claims 1, 5 and 9 except for a method of operating an updatable electronic device comprising steps of determining the occurrence errors, gathering parameter, updating information, etc... instead of an updatable electronic device comprising a first component for determining the occurrence errors, second component for gathering parameter, a third component for updating information, etc...Therefore, these claims are also rejected under the same rationale applied against claims 1, 5 and 9. **In addition, all of**

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the limitations have been noted in the rejection as per claims 1, 5 and 9.

As per claims 30-35:

Due to the similarity of claims 30-35 to claims 1-4 and 9 except for a network for updating updatable electronic device comprising server for reporting errors, server receiving information, server for updating information, etc... instead of an updatable electronic device comprising a first component for determining the occurrence errors, second component for gathering parameter, a third component for updating information, etc... Mikami explicitly teaches a plurality of servers connected to support the hardware, software, and firmware error detection and correction system [fig. 1, col. 3, lines 60 through col. 4, lines 2]; Therefore, these claims are also rejected under the same rationale applied against claims 1-4 and 9. In addition, all of the limitations have been noted in the rejection as per claims 1-4 and 9.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. A shortened statutory period for response to this action is set to expired THREE (3) months, ZERO days from the date of this

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letter. Failure to respond within the period for response will cause the application to be abandoned. 35 U.S.C. 133.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu-Minh Le whose telephone number is (571) 272-3660. The examiner can normally be reached on Monday - Thursday from 8:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The Tech Center 2100 phone number is (571) 272-2100. The Central FAX number is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DIEU-MINH THAI LE
PRIMARY EXAMINER
ART UNIT 2114

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7/19/05